Amendment

1. (Currently Amended) A method for scanning a surface **of an array of chemicals, said method** comprising:

mounting an array of chemicals on a carrier;

generating a light beam and delivering the beam to a surface **of said array of chemicals**;

detecting a response of the surface to the light beam with a detector;

reciprocating the light beam and surface with respect to one another with a voice coil at a relative speed; and

modulating a sample period based on said relative speed.

2. (Cancel)

3. (Previously Presented) A method according to claim 1 wherein the relative speed is 1m/s.

4. (Previously Presented) A method according to claim 1wherein the reciprocating provided by the voice coil occurs along one axis of a raster.

5. (Previously Presented) A method according to claim 1wherein the reciprocating takes place under a focused light beam.

6. (Cancelled)

7. (Original) A method according to claim 6 wherein the array of chemicals is a DNA chip.

8. (Original) A method according to claim 6 wherein the reciprocating is provided by the voice coil which is coupled between a carrier holding the array and a support.

9. (Original) A method according to claim 6 wherein the reciprocating is provided by the voice coil which is coupled to move a lens through which the light beam is delivered.

10. (Previously Presented) A method according to claim 1 additionally comprising compensating for variable integral illumination per sample.

11. (Currently Amended) The method of claim **10** **[[11]]** wherein the compensating comprises scaling amplitude of a measured signal by function of the ratio of an actual sample period to a nominal sample period.

12. (Currently Amended) A method for scanning a surface **of an array of chemicals, said method** comprising:

mounting an array of chemicals on a carrier;

generating a light beam and delivering the beam to ~~a~~ **said** surface of an array of chemicals;

detecting a response of the surface to the light beam with a detector;

reciprocating the light beam and surface with respect to one another at a relative speed; and

compensating for variable integral illumination per detected data sample of the response.

13. (Currently Amended) An apparatus for scanning a surface of a chemical array comprising:

a detector for detecting an optical signal from the surface **of a chemical array**;

a carrier to support the surface **of a chemical array**, wherein the detector or the carrier moves with respect to the other at a relative speed;

a control system that modulates the sample period based on said relative speed; and

a voice coil to cause the moving of the detector or carrier with respect to the other.

14. (Original) An apparatus according to claim 13 wherein the voice coil is connected to move the detector.

15. (Original) An apparatus according to claim 13 wherein the voice coil is connected to move the carrier.

16. (Original) An apparatus according to claim 13 additionally comprising an optical system to generate a light beam and to deliver the beam to the surface.

17. (Original) An apparatus according to claim 16 wherein the optical system includes a lens through which the light beam is delivered to the surface.

18. (Original) An apparatus according to claim 16 wherein the voice coil is connected to move the lens.

19. (Original) An apparatus according to claim 13 wherein the voice coil moves the detector or the carrier moves with respect to the other at a speed of 1m/s.

20. (Original) An apparatus according to claim 13 wherein the movement provided by the voice coil comprises a reciprocating movement which occurs along one axis of a raster.

21. (Original) An apparatus according to claim 17 wherein the optical system delivers a focused light beam to the surface.

22. (Currently Amended) A method for scanning a surface **of an array of chemicals, said method** comprising:

mounting an array of chemicals on a carrier;

generating a light beam and delivering the beam to a surface **of said array of chemicals**;

detecting a response of the surface to the light beam with a detector;

moving the light beam and surface with respect to one another at a relative speed;

modulating a sample period based on said relative speed; and

compensating for variable integral illumination per sample.